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New Hampshire Department of Environmental Services

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Watershed Management Bureau

Rivers Management and Protection Program

The Lamprey River

A Report to the General Court January 1990

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Note: This document has been edited from its original form.

I. INTRODUCTION

The Lamprey River begins in the town of Northwood, New Hampshire, and flows through several towns before becoming a tidal river in Newmarket and empty into the Great Bay. A 9.5 mile segment of the Lamprey River in the towns of I and Durham has been nominated by the Lamprey River Watershed Association for designation into the New Hampshire Rivers Management and Protection Program. The river segment has been evaluated by the Department of Environmental Services and found to qualify for designation.

The Rivers Management and Protection Program Act was passed by the General Court in 1988. The Act states in part: *"It is the policy of the state to ensure the continued Unity of New Hampshire rivers for the benefit of present and future generations. The state shall encourage and assist in the development of river corridor management plans and regulate the quantity and quality of in-stream flow along certain protected rivers or segments of rivers to conserve and protect outstanding characteristics including recreational, fisheries, wildlife, environmental, cultural, historical, archaeological, scientific, ecological, aesthetic, and community significance so that these valued characteristics shall endure as part of the river uses to be enjoyed by New Hampshire people."*

The Act directs the Department of Environmental Services to receive and evaluate nominations for the designation of rivers or river segments to protect outstanding values and characteristics under the Rivers Management and Protection Program. The Commissioner must forward approved nominations to the next session of the General Court for review and approval.

In fulfillment of this statutory directive, the nomination of the Lamprey River the towns of Lee and Durham is hereby forwarded to the General Court. The Department of Environmental Services recommends that this river segment be designated into the Rivers Management and Protection Program and be classified as a "Rural River" under the provisions of the protection measure amendments to RSA Ch. 483. The outstanding statewide and local resource values and characteristics which qualify this river segment for designation are described in this report.

II. THE LAMPREY RIVER NOMINATION

A. DESCRIPTION

The nomination of the Lamprey River is limited to the segment of the river that flows through the towns of Lee and Durham (see map). This segment is part of the larger Lamprey River system which flows for 60 miles through the southeastern corner of the state. Although this segment is located in an area of early settlement and recent population growth and development, the river itself shows remarkably little evidence of man's presence.

Land use along the river segment is primarily rural, with a dozen farms nestled among forestland and scattered single family residences. Although a majority of the riparian land is in private ownership and some residential development has occurred, a large percentage of the land in the river corridor remains in large, undeveloped tracts. Most of the man-made modifications and improvements are well screened from the river by a buffer of trees along the banks. Existing town ordinances support the continuation of appropriate land use in the river corridor by requiring minimum lot sizes of two and three acres and by allowing clustering of homes to provide common areas of open space along the river.

Beginning at the Lee-Epping border, the river flows north past forest, farms, homes, and a campground before turning east and dropping through a breach dam at Wadleigh Falls. Below the falls, the river meanders east and then north to the Lee Hook Road bridge and then turns east once again, flowing by forests, farms, and a large wildlife/marsh area before entering the town of Durham. In Durham, the river pours over the Wiswall Dam and then runs to the rapids at Packers Falls.

B. RIVER VALUES AND CHARACTERISTICS

The Rivers Management and Protection Program Act (RSA Ch. 483) lists nine river values and characteristics which may qualify a river for designation into the program. In the towns of Lee and Durham, the Lamprey River supports many of these natural, managed, cultural, and recreational resource values and characteristics at a level of either statewide or local significance. The resource values which qualify the Lamprey River for designation are: wildlife, plant, and fish resources; water quality; scenic values; historic and archaeological sites; community resources; and recreational resources.

1. Natural Resources

a. Wildlife and Plant Resources: The Lamprey River supports a diverse habitat of wetlands, forest, and open fields that is home to a variety of wildlife and plant species. As a major tributary to the Great Bay National Estuarine

Reserve, the river plays an important role in maintaining the overall health of the protected bay's environment. A number of endangered and threatened bird species have been sighted along the river and are believed to rely on the river habitat for food and shelter, including the federally-endangered bald eagle which sometimes forages in the river while wintering at Great Bay. The first osprey nest on the seacoast region during this century was discovered within two miles of the river in 1989. The New Hampshire Natural Heritage Inventory lists 12 endangered or threatened plant species and the threatened spotted turtle as occurring along this segment of the Lamprey River.

b. Fish Resources: The Lamprey River supports a significant fishery. Shad, alewives, and salmon are found up to the impassable Wiswall Dam in Durham. Naturally-reproducing species sought by fishermen include small and largemouth bass, chain pickerel, sunfish, American eel, and brown bullhead. The Fish and Game Department regularly stocks the river with shad, rainbow, brook, and brook trout.

c. Water Quality: The Lamprey River has been designated a Class B water by the General Court and is currently partially supporting the standards of this water quality goal. The significance of improving and maintaining a high level water quality in the river is evidenced by the use of the river segment as a reserve water supply for the town of Durham, the river's critical link to the Great Bay National Estuarine Reserve, and the increasing use of the river for recreation.

d. Scenic Values: Tree-lined riverbanks, pastures, and gently-flowing waters interrupted by short stretches of rapids, combine to make the Lamprey River an important scenic resource. From the river, few signs of human development or habitation are visible. Views of the river are beautiful from the bridge crossing particularly at Wadleigh Falls Road, Lee Hook Road, and Packers Falls.

2. Cultural Resources

a. Historic and Archaeological Resources: This segment of the Lamprey River is rich in history. Early commercial and industrial growth centered around the use of the river's falls for saw and grist mills. The Wiswall Falls Mill Site in Durham has been placed on the National Register of Historic Places in recognition of the extensive 19th century mill complex located at this site. On an island below Wadleigh Falls, archaeologists have documented artifacts over 8,000 years old that are among the earliest dated archaeological artifacts in New Hampshire.

b. Community Resource: The importance of the Lamprey River to the towns of Lee and Durham is reflected in the planning efforts of both towns. The Durham Master Plan identifies the river as an important resource. In Lee, a shoreland protection ordinance prevents construction within 100 feet of the river and prohibits the removal of more than 50 percent of the basal area of trees along the river.

3. Recreational Resources

a. Boating: Canoeing is a popular activity on the Lamprey River. Although located within 15 miles of the populated seacoast and 60 miles from metropolitan Boston, the upper portion of the river segment in Lee is described

in a river guidebook as "a quiet retreat into the woods... past densely forested banks of hemlock and hardwoods..." For the more adventurous, the guidebook recommends Packers Falls in Durham as providing "one of the most challenging rapids in the Piscataqua Watershed." Both public and informal launching areas provide canoe access to the river; no boat ramps have been developed on this segment of the Lamprey River.

b. Fishing: A 1985 survey by the Department of Fish and Game found that anglers from throughout New England spent 875 fishing hours on a 3/4 mile segment of the Lamprey River below Wiswall Falls in a single month. Fishing continues into the winter, with ice-fishing popular along the length of the segment. Salmon Unlimited has negotiated agreements with private landowners along key areas of the river segment to allow access for fishermen.

c. Other Recreation: Swimming, tubing, horseback riding, bird watching, and camping are other recreational activities that people enjoy on or next to the Lamprey River. The town of Durham owns two recreational areas in the river corridor: an 80 acre parcel at Doe Farm has trails for hiking, jogging, and skiing and the Packers Falls Recreation Area provides public access to the whitewater for canoeing, swimming and tubing. The privately-owned Durham Boat Company offers instruction, storage, and launching facilities for sculling shells below Moat Island. Three campgrounds located in the river segment have facilities for seasonal camping.

III. LOCAL SUPPORT

Local support for the designation of this segment of the Lamprey River into the Rivers Management and Protection Program is very strong. Both the Lee and Durham Boards of Selectmen and Conservation Commissions have voted to support the designation. More than 80 people attended a public hearing held at the Jeremiah Smith Grange Hall in Lee on December 4, 1989; an overwhelming majority of those in attendance expressed support for the designation. In fact, many people who spoke at the hearing advocated the classification of the Lamprey River as a "Natural River" and voiced strong support for the adoption of stringent protection measures for the river segment.

In June 1989, a federal license was issued for the construction and operation of a hydroelectric facility at the Wiswall Falls Dam in Durham. The proposed facility has been a source of controversy in the town for a number of years, and the issuance of a license by the Federal Energy Regulatory Commission has re-invigorated local efforts to stop the project and provide permanent protection for the river from new hydroelectric facilities. The license is currently under appeal by both the state and private parties, and a local effort is underway to have this segment of the river studied under the federal Wild and Scenic River Program. Ninety percent of the riparian landowners in Durham and more than fifty percent in Lee have endorsed a request for the federal study.

IV. SUMMARY AND RECOMMENDATIONS

As it flows through the towns of Lee and Durham, the Lamprey River supports a variety of significant state and local resources. To better protect and manage these resources, the Department of Environmental Services recommends the following actions:

Recommendation 1: The General Court should adopt legislation which designates the Lamprey River in Lee and Durham into the Rivers Management and Protection Program and classifies the segment as a "Rural River."

Under the provisions of the protection measure amendments to RSA Ch. 483, rural designation will provide increased protection for the river against water quality impairment, new dam construction, damaging channel alterations, and the siting of solid and hazardous waste facilities within the river corridor. A designation will also require the establishment of protected instream flow levels to maintain the minimum amount of water in the river that is necessary to safeguard public trust resources, including water quality, recreation, fisheries, and scenic values. A Local River Management Advisory Committee will be established to coordinate local issues related to the protection and management of the river and will provide local residents with a direct avenue for formal input to state decisions that affect the river. Finally, a designation will result in the development of a long-range management plan for the river that coordinates state planning and management of fisheries, water quality and quantity, and recreation.

A "Rural River" classification is recommended for this segment of the Lamprey River. Under the proposed amendments to RSA Ch. 483, rural rivers are defined as "those rivers or river segments adjacent to lands which are partially or predominantly used for agriculture, forest management, and dispersed or clustered residential development. Some instream structures may exist, including low dams...". The Lamprey River in the towns of Lee and Durham clearly meets this definition: the riverbanks are predominantly forested; land use within the corridor is a mix of forest, farms, and single family residences; and the dam at Wiswall Falls is an existing instream structure.

The designation of the Lamprey River as a "Rural River" under the Rivers Management and Protection Program will clearly express the intent of the General Court with regard to the protection and management of the river and will focus attention on the river as a natural resource of both statewide and local significance. This attention will help to insure greater scrutiny of plans or proposals which have the potential to significantly alter or destroy those river values and characteristics which qualify the Lamprey River for designation.

Recommendation 2: The towns of Lee and Durham should continue to work toward the protection of the Lamprey River through the adoption of local river corridor management plans, including comprehensive shoreland protection ordinances.

While a state designation will improve the protection and management of the river itself, continuing local efforts will be needed to address the use and conservation of the river corridor. A growing recognition by local citizens of the Lamprey River's valuable contribution to the overall quality of life in their communities is evidenced by their desire to see it designated into the state program. Citizen appreciation and concern for the river should be reflected in the decisions and actions of local officials. Upon request, the Department of Environmental Services will provide technical assistance to the towns of Lee and Durham on the development of local river corridor management plans, including comprehensive shoreland protection ordinances.

In summary, the establishment of a clear policy and specific instream protect measures by the General Court, and a continuing commitment on the part of local governments and residents to protect and manage the river corridor through sound land use decisions will ensure that the outstanding resources c the Lamprey River will "endure as part of the river uses to be enjoyed by New Hampshire people."

Prepared by

**State of New Hampshire
Department of Environmental Services
Office of the Commissioner
29 Hazen Drive
Concord, NH 03302-0095**

**Robert W. Varney
Commissioner**

**John E. Dabuliewicz
Assistant Commissioner**



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